UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I - EPA New England

Drafted Date: October 27, 2011
Finalized Date:
SUBJECT: Partial Compliance Evaluation of Sprague Terminal in Providence, RI

FROM: Elizabeth Kudarauskas, Environmental Engineer, Air Technical Unit

THRU: Christine Sansevero, Senior Enforcement Coordinator, Air Technical Unit

TO: File

I. Facility Information
A. Facility Name: Sprague
B. Facility Location: 144 Allens Avenue, Providence, RI
C. Facility Mailing Address: same
D. Facility Contact: Lisa Fortin
E: AFS #: 4400700542

II Background Information
A. Date of inspection: August 2, 2011
B. Weather Conditions: Sunny, approx. 80's
C. US EPA Representative(s):
Beth Kudarauskas, OES Air Tech Unit
Steve Rapp, OES Air Tech Unit
Bill Osbahr, OEME
Mike Looney, OEME
D. State Representative(s):
Karen Peltier, RI DEM

III Purpose of Inspection
The purpose of this inspection was to gather information to evaluate the facility's compliance with environmental regulations pertaining to air, including state permitting requirements, with an emphasis on potential VOC emissions from the storage of #6 oil and asphalt.

IV Facility Description

A. Company / Facility History:
Sprague is a wholly owned subsidiary of Axel Johnson Inc., a member of the Axel Johnson Group of Stockholm, Sweden. The company was incorporated on 10/9/1987 in the state of

Delaware. Sprague owns and operates a bulk fuel distribution terminal with loading rack in Providence, RI.

V Inspection

A. Entry:
The inspectors entered the facility at approximately 9:00 am. Ms. Kudarauskas showed her credentials to the terminal security.

B. Opening Conference:
The inspectors were joined by Ms. Hernberg (EH&S Manager) and Lisa Fortin, (Manager, Terminal Operations) of Sprague for the opening conference. The inspectors explained that they were there to conduct an inspection of the facility to evaluate compliance with air regulations. Ms. Kudarauskas made clear that the inspectors were not conducting a full compliance evaluation. The inspectors explained that they planned to spend some time at the facility asking questions, touring the facility, and using leak detection equipment including a FLIR camera and TVA 1000. Results from the leak monitoring and the FLIR camera will be included as an attachment to this report when available from OEME. Ms. Fortin expressed security concerns with the inspectors taking photos and video.

Ms. Hernberg provided the inspectors with a facility map (Attachment A) to facilitate the discussion. The Sprague Providence Terminal operates a marine dock. Asphalt and #6 oil is received via the terminal dock, however the facility is equipped to accept truck deliveries.

Most of the product at the terminal is not owned by Sprague. The Sprague Providence Terminal has one large tank of #6 oil (Tank 6) and one tank of asphalt (Tank 5).

Tank #	Product Stored	Shell Capacity (bbls)	Safe-Fill (bbls)	Capacity (gals)	Safe-Fill (gals)	Date Operational	Product in Tank on 8/2/11 (bbls)	Tank Temperature on 8/2/11 (^{o}F)
5	Asphalt	132,000	125,000	5,544,000	5,250,000	1960	47,460	275
6	6 Oil (1.0% sulfur)	148,000	138,721	6,216,000	5,826,282	1968	36,799	139

Providence Throughput, Gallons

	2006	2007	2008	2009	2010
Asphalt	15,735,367	12,803,569	10,559,543	9,787,675	8,245,258
#6 Oil	22,343,177	16,875,771	13,394,590	13,706,420	10,639,322

Sprague's Providence Terminal does not utilize any type of vapor collection or control system on the #6 oil or the asphalt tanks. However, the #2 oil and diesel loading racks have a vapor displacement system (not a vapor recovery system). The vapor displacement system collects the vapors at the loading rack and releases them elsewhere to the atmosphere. The system is in place to reduce the exposure of the truck drivers to the vapors.

In addition to the #6 oil and asphalt, Sprague's Providence Terminal also stores ULSD, #2 oil and #4 oil. The #4 oil was used as boiler fuel but the boiler is now burning primarily natural gas with #2 oil as a backup. Also located at the facility are two tanks, Tanks 10 and 11 that are owned by Dominion Energy, a nearby power plant. Tanks 10 and 11 hold #2 oil and blend #2 oil and diesel as necessary for the Dominion facility.

C. Plant Walkthrough

The facility tour began at Tank 6 which contains #6 oil. Mr. Looney used the FLIR camera to record emissions from the tank vent at 10:12 am, the gauge hatch at 10:15 am and the center tank vent at 10:19 am. Ms Kudarauskas noted clear vapors being released from the center tank vent, but with the naked eye it could not be determined if this was a result of heat loss or oil vapors. Mr. Osbahr used the TVA 1000 to record 39 ppm at the tank hatch.

The inspectors then climbed Tank 5, which contained roofing grade asphalt. Ms Kudarauskas and Ms Peltier did not climb up this tank because the facility representative expressed concern about limited space on top of Tank 5. Mr Looney recorded some FLIR video of the tank vent. Mr Osbahr indicated that the TVA 1000 did not detect emissions over 500 ppm.

At approximately 10:42 am, the inspectors were able to watch a truck loading asphalt at the loading rack. Mr. Looney used the FLIR camera to view the loading operation but was not able to record the loading due to technical issue. Mr Looney stated that no emissions were visible with the FLIR.

The inspectors were able to view the boiler stack from the area of the loading rack. The smaller stack is the active boiler (which burns natural gas). No visible emissions were observed at the time of the inspection. The large stack on the boiler house is out of service.

D. Record Review and Closing Conference

In the office, Ms. Kudarauskas was provided with the tank information requested during the inspection (tank level, capacity, and temperature). The inspectors thanked the facility representatives for their time and cooperation.

The inspectors left the facility at approximately 11:00 am.